

NOTICE OF INTENT

Department of Environmental Quality
Office of Environmental Assessment
Environmental Planning Division

Under the authority of the Environmental Quality Act, R.S. 30:2001 et seq., and in accordance with the provisions of the Administrative Procedure Act, R.S. 49:950 et seq., the secretary gives notice that rulemaking procedures have been initiated to amend the Air regulations, LAC 33:III.2201 (Log #AQ224).

This proposed revision of LAC 33:III.Chapter 22, Control of Emissions of Nitrogen Oxides, lowers the regulatory threshold for lean-burn internal combustion engines in the Baton Rouge Nonattainment Area from 1500 to 320 horsepower. The proposed rule also revises the definitions for "peaking service" and "cap" and ensures that the allowance trading program is consistent with LAC 33:III.605 and 607. The regulatory threshold for lean-burn internal combustion engines located in the Baton Rouge Nonattainment Area is being revised in order to meet Reasonably Available Control Technology (RACT) requirements for NO_x emissions in the ozone nonattainment parishes. This rule is also being proposed as a revision to the Louisiana State Implementation Plan (SIP). The basis and rationale for this proposed rule are to protect air quality in Louisiana and to comply with the NAAQS for ozone.

This proposed rule meets an exception listed in R.S. 30:2019.D.(2) and R.S. 49:953.G.(3); therefore, no report regarding environmental/health benefits and social/economic costs is required. This proposed rule has no known impact on family formation, stability, and autonomy as described in R.S. 49:972.

A public hearing on the proposed rule and the SIP revision will be held on April 24, 2002, at 1:30 p.m. in the Maynard Ketcham Building, Room 326, 7290 Bluebonnet Boulevard, Baton Rouge, LA 70810. Interested persons are invited to attend and submit oral comments on the proposed amendments. Attendees should report directly to the hearing location for DEQ visitor registration, instead of to the security desk in the DEQ Headquarters building. Should individuals with a disability need an accommodation in order to participate, contact Patsy Deaville at the address given below or at (225) 765-0399.

All interested persons are invited to submit written comments on the proposed regulations. Persons commenting should reference this proposed regulation by AQ224. Such comments must be received no later than May 1, 2002, at 4:30 p.m., and should be sent to Patsy Deaville, Regulation Development Section, Box 82178, Baton Rouge, LA 70884-2178 or to FAX (225) 765-0389 or by e-mail to patsyd@deq.state.la.us. Copies of this proposed regulation can be purchased at the above referenced address. Contact the Regulation Development Section at (225) 765-0399 for pricing information. Check or money order is required in advance for each copy of AQ224.

This proposed regulation is available for inspection at the following DEQ office locations from 8 a.m. until 4:30 p.m.: 7290 Bluebonnet Boulevard, Fourth Floor, Baton Rouge, LA

70810; 804 Thirty-first Street, Monroe, LA 71203; State Office Building, 1525 Fairfield Avenue, Shreveport, LA 71101; 3519 Patrick Street, Lake Charles, LA 70605; 201 Evans Road, Building 4, Suite 420, New Orleans, LA 70123; 100 Asma Boulevard, Suite 151, Lafayette, LA 70508; 104 Lococo Drive, Raceland, LA 70394 or on the Internet at <http://www.deq.state.la.us/planning/regs/index.htm>.

James H. Brent, Ph.D.
Assistant Secretary

Title 33
ENVIRONMENTAL QUALITY

Part III. Air

Chapter 22. Control of Emissions of Nitrogen Oxides (NO_x)

§2201. Affected Facilities in the Baton Rouge Nonattainment Area and the Region of Influence

A. - A.3. ...

B. Definitions. Unless specifically defined in this Subsection or in LAC 33:III.111 or 502, the words, terms, and abbreviations in this Chapter shall have the meanings commonly used in the field of air pollution control. For purposes of this Chapter only, the following definitions shall supersede any definitions in LAC 33:III.111 or 502.

* * *

Cap—a system for demonstrating compliance whereby an affected facility, a subset of affected sources at an affected facility, or a group of affected facilities under common control are operated to stay below a mass emission rate expressed as mass per unit of time. The allowable mass emission rate is calculated by adding the allowable emissions for each affected point source. The allowable emission is the product of the source's average hourly heat input in MMBtu/hour (not to exceed any applicable permit limitations) based on the highest consecutive 30-day period during the ozone seasons of 2000 and 2001 ~~averaging capacity~~ and the applicable factor in Paragraph D.1 of this Section.

* * *

Peaking Service—a stationary gas turbine ~~or stationary internal combustion engine~~ that is operated intermittently to produce energy. To be in peaking service, the annual electric output (MW-hour) heat input or horsepower hours for the affected point source shall be less than the product of 2500 hours and the MW rating of the turbine ~~or the horsepower rating of the engine~~.

* * *

Trading Allowances—the tons of NO_x emissions that result from over-controlling, permanently reducing the operating rate of, or permanently shutting down, an affected point source located within the Baton Rouge Nonattainment Area or the Region of Influence. The allowances are determined in accordance with LAC 33:III.607.C ~~Chapter 6~~ and from the emission factors required by Subsection D of this Section for the affected point source and the enforceable emission factor assigned by the owner or operator in accordance with Subsection E of this Section. Baseline emissions shall be the lower of actual emissions or adjusted allowable emissions, as defined in LAC 33:III.605. Trading allowances will be granted only for reductions that are real, quantifiable, permanent, and federally enforceable. NO_x reductions that are used in a facility-wide averaging plan cannot be also be used in a trading plan.

* * *

C. - C.3. ...

- and
- a. rich-burn engines with a rating of less than 300 horsepower (Hp);
 - b. lean-burn engines with a rating of less than 320+500 Hp in the Baton Rouge Nonattainment Area; and
 - c. lean-burn engines with a rating of less than 1500 Hp in the Region of Influence;

C.4. - 20. ...

D. Emission Factors

1. The following table lists NO_x emission factors that shall apply to affected point sources located at affected facilities in the Baton Rouge Nonattainment Area or the Region of Influence:

NO _x Emission Factors		
Category	Maximum Rated Capacity	NO _x Emission Factor ^a
Electric Power Generating System Boilers:		
Coal-fired	>= 80 MMBtu/Hour	0.21 pound/MMBtu
Number 6 Fuel Oil-fired	>= 80 MMBtu/Hour	0.18 pound/MMBtu
All Others (gaseous or liquid)	>= 80 MMBtu/Hour	0.10 pound/MMBtu
Industrial Boilers	>= 80 MMBtu/Hour	0.10 pound/MMBtu
Process Heater/Furnaces:		
Ammonia Reformers	>= 80 MMBtu/Hour	0.23 pound/MMBtu
All Others	>= 80 MMBtu/Hour	0.08 pound/MMBtu
Stationary Gas Turbines:	>= 10 MW	0.16 pound/MMBtu^b
<u>Peaking Service, Fuel Oil-fired</u>	<u>>= 10 MW</u>	<u>0.30 pound/MMBtu</u>
<u>Peaking Service, Gas-fired</u>	<u>>= 10 MW</u>	<u>0.20 pound/MMBtu</u>
<u>All Others</u>	<u>>= 10 MW</u>	<u>0.16 pound/MMBtu^b</u>
Stationary Internal Combustion Engines:		
Lean-burn (<u>Region of Influence</u>)	>= 1500 Hp	4g/Hp-hour
<u>Lean-burn (Baton Rouge Nonattainment Area)</u>	<u>>= 320 Hp</u>	<u>4g/Hp-hour</u>
Rich-burn	>= 300 Hp	2g/Hp-hour

^a all factors are based on the higher heating value of the fuel.

^b equivalent to 42 ppmv (15 percent O₂, dry basis) with an F factor of 8710 dscf/MMBtu.

D.2. - 2.c. ...

3. For affected point sources in an electric power generating system ~~that fire gaseous or liquid fuels~~, the emission factors from Subsection D of this Section shall apply as the mass of NO_x emitted per unit of heat input (pound NO_x per MMBtu), on a 30-day rolling average

basis. Alternatively, a facility may choose to comply with a ton per day or a pound per hour cap provided that monitoring is installed, calibrated, maintained, and operated to demonstrate compliance with the cap. The cap for a facility or for multiple facilities under common control is calculated by adding the products of the factor from Paragraph D.1 of this Section and the average hourly heat input in MMBtu/hour (not to exceed any applicable permit limitations) based on the highest consecutive 30-day period during the ozone seasons of 2000 and 2001 averaging capacity for each affected point source as follows:

$$Cap \text{ (tpd) } = 0.012 \times \sum_{i=1}^N (R_{li} \times HI_i) \quad \text{Equation D-1}$$

Where:

HI_i = the average hourly heat input based on the highest consecutive 30-day period during the ozone seasons of 2000 and 2001 averaging capacity of each point source (MMBtu/hour)

i = each point source included in the cap

N = the total number of point sources included in the cap

R_{li} = the limit for each point source from Subsection D of this Section (pound NO_x /MMBtu)

4. For all other affected point sources, ~~including those in a coal-fired electric power generating system~~, the emission factors from Subsection D of this Section shall apply as the mass of NO_x emitted per unit of heat input (pound NO_x per MMBtu), on a 30-day rolling average basis. Alternatively, a facility may choose to comply with a cap as detailed in Paragraph D.3 of this Section provided a system, approved by the department, is installed, calibrated, maintained, and operated to demonstrate compliance.

D.5. – 9. ...

E. Alternative Plans

1. Facility-Wide Averaging Plan. A facility-wide averaging plan is established in this Chapter for single affected facilities and multiple affected facilities that are owned or operated by the same entity. For sources located within the Baton Rouge Nonattainment Area ~~or~~ and the Region of Influence, an owner or operator of one or more affected facilities may use the facility-wide averaging plan as an alternative means of compliance with the emission factors from Subsection D of this Section. A request for approval to use a facility-wide averaging plan, that includes the details of the plan, shall be submitted to the department either separately or with the permit application or in the optional compliance plan described in Paragraph F.7 of this Section. A facility-wide averaging plan submitted under this provision shall be approved if the department determines that it will provide emission reductions equivalent to or more than that required by the emission factors in Subsection D of this Section and the plan establishes satisfactory means for determining initial and continuous compliance, including appropriate monitoring and recordkeeping requirements. Approval of the alternative plans by the administrative authority does not necessarily indicate automatic approval by the administrator.

E.1.a. ...

b. An owner or operator of an electric power generating system ~~that fires gaseous or liquid fuels and~~ that chooses to use an averaging plan shall demonstrate compliance by either of the following methods:

E.1.b.i - ii. ...

c. Owners or operators of all other affected point sources, ~~including those in a coal-fired electric power generating system,~~ that choose to use an averaging plan shall demonstrate compliance by either of the following methods:

i. operating such that each affected point source does not exceed its assigned individual limit in pound NO_x/MMBtu on a 30-day rolling average basis; or
 ii. complying with a cap as described in Paragraph D.43 of this Section, provided a system, approved by the department, is installed, calibrated, maintained, and operated to demonstrate compliance with the cap.

E.1.d - i. ...

2. Trading Plan. Trading is established in this Chapter as an alternate means of compliance with the emission factors from Subsection D of this Section. Within the Baton Rouge Nonattainment Area and the Region of Influence, trading allowances, as defined in Subsection B of this Section, may be traded between affected facilities owned by different companies in a manner consistent with ~~accordance with the provisions of LAC 33:III.617.C.3 Chapter 6.~~ The approval to use trading shall be requested in the permit application or in the optional compliance plan described in Paragraph F.7 of this Section. A trading plan submitted under this provision shall be approved if the department determines that it will provide NO_x emission reductions equivalent to or more than that required by the emission factors of Subsection D of this Section and the plan establishes satisfactory means for determining ongoing compliance, including appropriate monitoring and recordkeeping requirements. Approval of trading plans by the administrative authority does not necessarily indicate automatic approval of the administrator.

F. - H.3.b.vi. ...

4. The owner or operator of stationary internal combustion engines that are subject to this Chapter ~~and have a horsepower rating of 300 Hp or greater for rich burn engines or 1500 Hp or greater for lean burn engines~~ shall demonstrate continuous compliance as follows:

H.4.a. - J.2. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:290 (February 2002), LR 28:

**FISCAL AND ECONOMIC IMPACT STATEMENT
FOR ADMINISTRATIVE RULES**

LOG #: AQ224

Person

Preparing

Statement: Paul HeussnerDept.: Department of Environmental QualityPhone: (225) 765-0265Office: Office of Environmental Assessment

Return

Address: P. O. Box 82178

Rule

Title: Revision to Control of Emissions of
Nitrogen Oxides (NO_x)Baton Rouge, LA 70809(LAC 33.III.2201

Date Rule

Takes Effect: Upon Promulgation**SUMMARY**

(Use complete sentences)

In accordance with Section 953 of Title 49 of the Louisiana Revised Statutes, there is hereby submitted a fiscal and economic impact statement on the rule proposed for adoption, repeal or amendment. THE FOLLOWING STATEMENTS SUMMARIZE ATTACHED WORKSHEETS, I THROUGH IV AND WILL BE PUBLISHED IN THE LOUISIANA REGISTER WITH THE PROPOSED AGENCY RULE.

**I. ESTIMATED IMPLEMENTATION COSTS (SAVINGS) TO STATE OR LOCAL GOVERNMENTAL UNITS
(Summary)**

There are no known implementation costs to state or local governmental units.

**II. ESTIMATED EFFECT ON REVENUE COLLECTIONS OF STATE OR LOCAL GOVERNMENTAL UNITS
(Summary)**

DEQ collects an annual fee of \$9.72 per ton of NO_x emissions. The proposed revision to Chapter 22 is expected to reduce these emissions by up to 440 tons per year, consequently reducing state fee collections by a maximum of \$4,277 per year.

III. ESTIMATED COSTS AND/OR ECONOMIC BENEFITS TO DIRECTLY AFFECTED PERSONS OR NON-GOVERNMENTAL GROUPS (Summary)

The estimated costs for implementing this revision to Chapter 22 should not exceed \$440,000, although they could be considerably lower. The department does not have precise cost information. Estimates utilize cost factors from the NESCAUM (Northeast States for Coordinated Air Use Management) publication *Status Report on NO_x Controls* dated December 2000. Additionally, there will be annual operating and maintenance costs.

IV. ESTIMATED EFFECT ON COMPETITION AND EMPLOYMENT (Summary)

The expected impact on competition and employment is believed to be minimal since the proposed revision primarily lowers the regulatory threshold for lean-burn, internal combustion engines in the Baton Rouge Nonattainment Area (parishes of Ascension, East Baton Rouge, Iberville, Livingston and West Baton Rouge). The department knows of only 5 engines at 2 facilities that will be directly affected by the rule revision.

Signature of Agency Head or Designee

LEGISLATIVE FISCAL OFFICER OR
DESIGNEE

James H. Brent, Ph.D., Assistant Secretary

Typed Name and Title of Agency Head or Designee

Date of Signature

LFO 7/1/94

Date of Signature

FISCAL AND ECONOMIC IMPACT STATEMENT FOR ADMINISTRATIVE RULES

The following information is requested in order to assist the Legislative Fiscal Office in its review of the fiscal and economic impact statement and to assist the appropriate legislative oversight subcommittee in its deliberation on the proposed rule.

- A. Provide a brief summary of the content of the rule (if proposed for adoption or repeal) or a brief summary of the change in the rule (if proposed for amendment). Attach a copy of the notice of intent and a copy of the rule proposed for initial adoption or repeal (or, in the case of a rule change, copies of both the current and proposed rules with amended portions indicated).

The proposed revision to Chapter 22 lowers the regulatory threshold for lean-burn internal combustion engines from 1500 to 320 horsepower in the Baton Rouge Nonattainment Area. The proposed rule also revises the definitions for "Peaking Service" and "Cap" in Chapter 22 and ensures that the allowance trading program is consistent with LAC 33:III.605 and 607.

- B. Summarize the circumstances which require this action. If the Action is required by federal regulation, attach a copy of the applicable regulation.

This proposed rule revises the regulatory threshold for lean-burn internal combustion engines located in the Baton Rouge Nonattainment Area in order to meet Reasonably-Available Control Technology (RACT) requirements for NO_x emissions in the ozone nonattainment parishes.

- C. Compliance with Act II of the 1986 First Extraordinary Session

(1) Will the proposed rule change result in any increase in the expenditure of funds? If so, specify amount and source of funding.

No, this proposed rule will not result in any increase in the expenditure of funds.

2) If the answer to (1) above is yes, has the Legislature specifically appropriated the funds necessary for the associated expenditure increase?

(a) ☐ Yes. If yes, attach documentation.

(b) ☐ No. If no, provide justification as to why this rule change should be published at this time.

This proposed rule will not result in any increase in the expenditure of funds.

FISCAL AND ECONOMIC IMPACT STATEMENT

WORKSHEET

I. A. COSTS OR SAVINGS TO STATE AGENCIES RESULTING FROM THE ACTION PROPOSED

1. What is the anticipated increase (decrease) in costs to implement the proposed action?

There will be no additional costs or savings to state governmental units as a result of this rule.

<u>COSTS</u>	<u>FY 02-03</u>	<u>FY 03-04</u>	<u>FY 04-05</u>
PERSONAL SERVICES			
OPERATING EXPENSES			
PROFESSIONAL SERVICES			
OTHER CHARGES			
EQUIPMENT			
TOTAL			
MAJOR REPAIR & CONSTR.			
POSITIONS (#)	0	0	0

2. Provide a narrative explanation of the costs or savings shown in "A.1.", including the increase or reduction in workload or additional paperwork (number of new forms, additional documentation, etc.) anticipated as a result of the implementation of the proposed action. Describe all data, assumptions, and methods used in calculating these costs.

There are no costs or savings associated with the proposed rule. Any workload adjustment will be absorbed by existing staff.

3. Sources of funding for implementing the proposed rule or rule change.

<u>SOURCE</u>	<u>FY 02-03</u>	<u>FY 03-04</u>	<u>FY 04-05</u>
STATE GENERAL FUND			
AGENCY SELF-GENERATED			
DEDICATED			
FEDERAL FUNDS			
OTHER (Specify)			
TOTAL	0	0	0

4. Does your agency currently have sufficient funds to implement the proposed action? If not, how and when do you anticipate obtaining such funds?

No additional funds are required to implement the proposed action.

B. COST OR SAVINGS TO LOCAL GOVERNMENTAL UNITS RESULTING FROM THE ACTION PROPOSED.

1. Provide an estimate of the anticipated impact of the proposed action on local governmental units, including adjustments in workload and paperwork requirements. Describe all data, assumptions and methods used in calculating this impact.

There is no estimated impact on local governmental units.

2. Indicate the sources of funding of the local governmental unit which will be affected by these costs or savings.

There is no estimated impact on local governmental units.

FISCAL AND ECONOMIC IMPACT STATEMENT

WORKSHEET

II. EFFECT ON REVENUE COLLECTIONS OF STATE AND LOCAL GOVERNMENTAL UNITS

A. What increase (decrease) in revenues can be anticipated from the proposed action?

DEQ collects an annual fee of \$9.72 per ton of NOx emissions. The proposed action is expected to reduce these emissions by up to 440 tons per year, consequently reducing state fee collections by a maximum of \$4,277.

REVENUE INCREASE/DECREASE	FY 02-03	FY 03-04	FY 04-05
STATE GENERAL FUND			
AGENCY SELF-GENERATED			
RESTRICTED FUNDS*			
FEDERAL FUNDS			
LOCAL FUNDS			
TOTAL	\$4,277	0	0

*Specify the particular fund being impacted.

B. Provide a narrative explanation of each increase or decrease in revenues shown in "A." Describe all data, assumptions, and methods used in calculating these increases or decreases.

DEQ collects an annual fee of \$9.72 per ton of NOx emissions. The proposed action is expected to reduce these emissions by up to 440 tons per year, consequently reducing state fee collections by a maximum of \$4,277. DEQ does not have precise emissions reductions data so the fee reduction is merely a rough estimate.

III. COSTS AND/OR ECONOMIC BENEFITS TO DIRECTLY AFFECTED PERSONS OR NONGOVERNMENTAL GROUPS

A. What persons or non-governmental groups would be directly affected by the proposed action? For each, provide an estimate and a narrative description of any effect on costs, including workload adjustments and additional paperwork (number of new forms, additional documentation, etc.), they may have to incur as a result of the proposed action.

The proposed rule primarily affects lean-burn internal combustion engines in the Baton Rouge Nonattainment Area (parishes of Ascension, East Baton Rouge, Iberville, Livingston, and West Baton Rouge).

The estimated costs for implementing this rule should not exceed \$440,000, although they could be considerably lower. The department does not have precise cost information. Estimates utilize cost factors from the NESCAUM (Northeast States for Coordinated Air Use Management) publication *Status Report on NOx Controls* dated December 2000. Additionally, there will be annual operating and maintenance costs.

Adoption of this rule will bring an additional 5 internal combustion engines under the record keeping and reporting requirements of Chapter 22.

B. Also provide an estimate and a narrative description of any impact on receipts and/or income resulting from this rule or rule change to these groups.

The department believes that the impact of this rule on receipts and/or income will be minimal.

IV. EFFECTS ON COMPETITION AND EMPLOYMENT

Identify and provide estimates of the impact of the proposed action on competition and employment in the public

and private sectors. Include a summary of any data, assumptions and methods used in making these estimates.

The expected impact on competition and employment is believed to be minimal since the rule merely lowers the regulatory threshold for lean-burn, internal combustion engines. The department knows of only 5 engines at 2 facilities that will be directly affected by the rule.